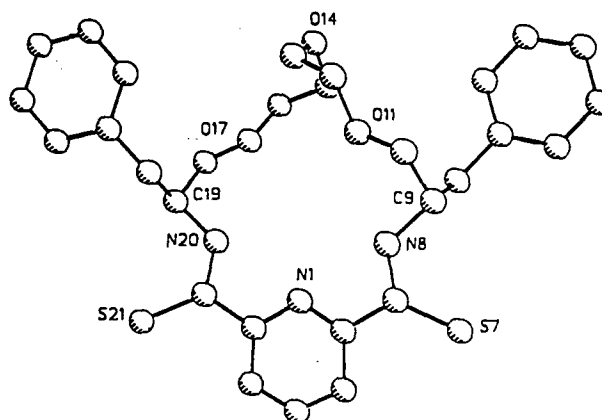
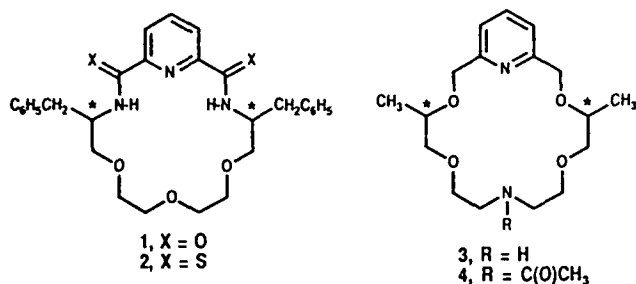


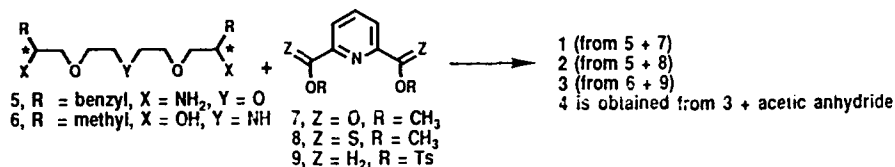
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Figure 1. Chiral diamido-, dithionoamido and azapyridino-18-crown-6



Scheme I. Preparation of chiral pyridino-crowns



X-Ray Structure of 2

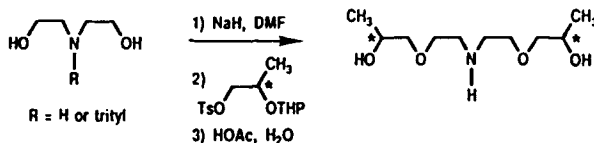
Chiral dimethyl-substituted azapyridino-18-crown-6 ligands (3 and 4) have also been prepared. Ligand 3 was prepared by reacting 2,6-pyridinedimethyl ditosylate (9) with chiral dimethyl-substituted azatetraethylene glycol (6) (see Scheme I) to give (S,S)-3; oil, $[\alpha]_D -4.26^\circ$ (c = 2.702, benzene). Compound 3 was reacted with acetic anhydride to give 4; oil, $[\alpha]_D +31.2^\circ$ (c = 0.5, benzene).

Ligand 3 formed a strong complex with α -(1-naphthyl)ethylammonium perchlorate. The ¹H NMR spectrum of the complex is very difficult to analyze suggesting that part of the complex has one proton from the ammonium salt transferred to the amine nitrogen atom of the aza-crown. Additional work is being done with this system.

Scheme II. Preparation of chiral starting diamine 5 and glycol 6

A. Diamine 5 was prepared as reported: Chadwick et al., *J. Chem. Soc., Perkin Trans. I* 1707 (1984)

B. Glycol 6



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